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ABSTRACT OF THE DISCLOSURE

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3   The apparatus of the invention includes an embedded device

4 having program code stored in ROM and an on-board or external RAM

5 for storing modified code segments. The methods of the invention

6 include structuring the ROM-based firmware so that an external

7 RAM-based function is called prior to each potentially modifiable

8 code segment. Prior to modifying the firmware, a dummy function

9 is stored in RAM so that every call to RAM is simply returned to

10 ROM. When a segment of code is to be modified, a replacement is

11 stored in RAM and indexed by the return address of the function

12 call. The system of the present invention is efficient as it uses

13 very little RAM. It does not require ROM-based decision making;

14 and it is not limited to a particular programming language. The

15 system of the invention is most suitable for use in a computer

16 peripheral which communicates with a higher level controller, e.g.

17 a personal computer, from which replacement code can be

18 downloaded.